



TRANSPORTATION LRC

BIKE LANE ACCESS INTO COMPLEX INTERSECTIONS

December 09, 2010

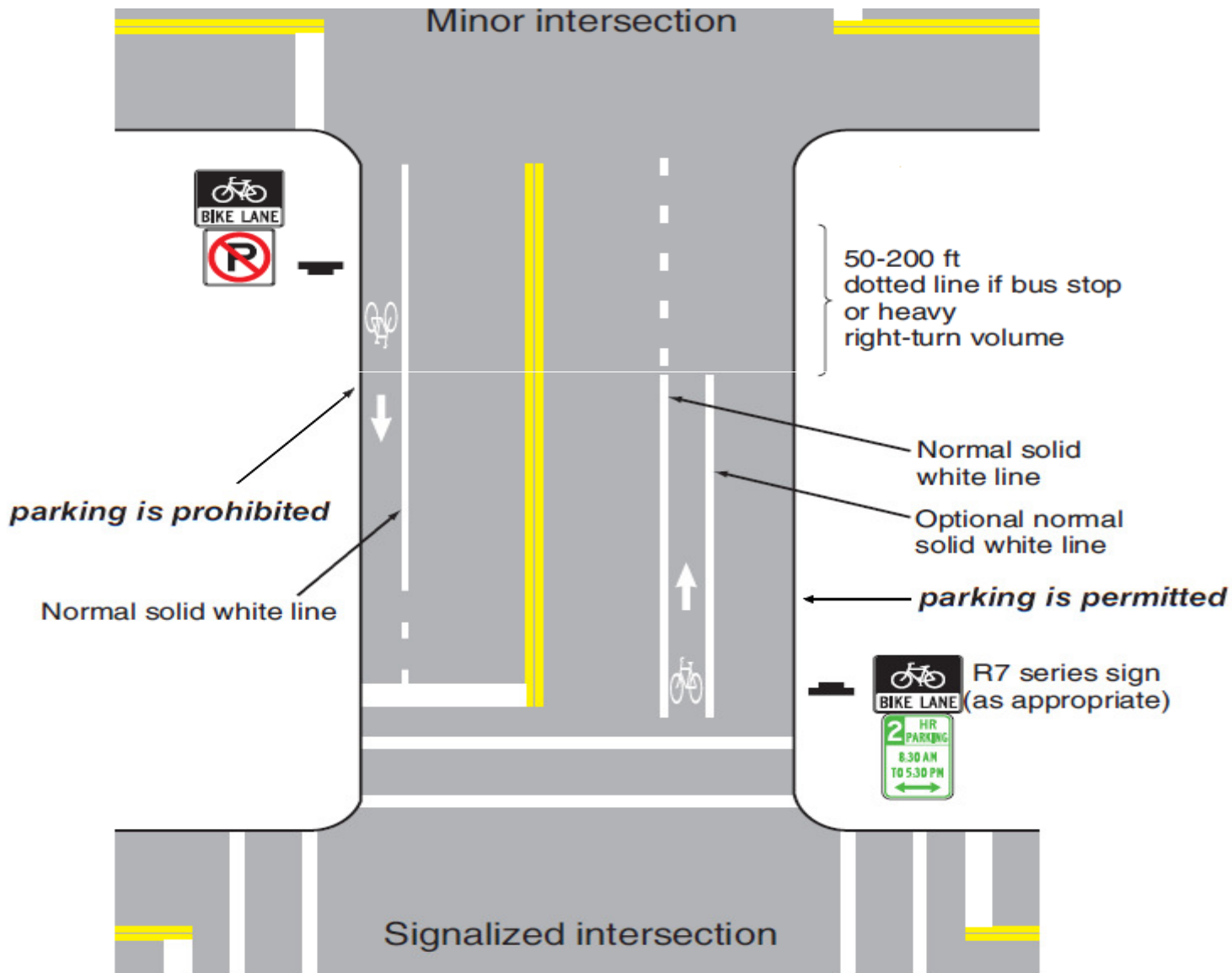


The following design samples are from

- The Texas Manual on Uniform Traffic Control Devices (MUTCD) and
- Federal Highway Administration (FHWA) recommendations



BICYCLE LANES ON A TWO-WAY STREET



S E R V I C E S O L U T I O N S S U C C E S S



EDGEMERE AT NOLAN RICHARDSON



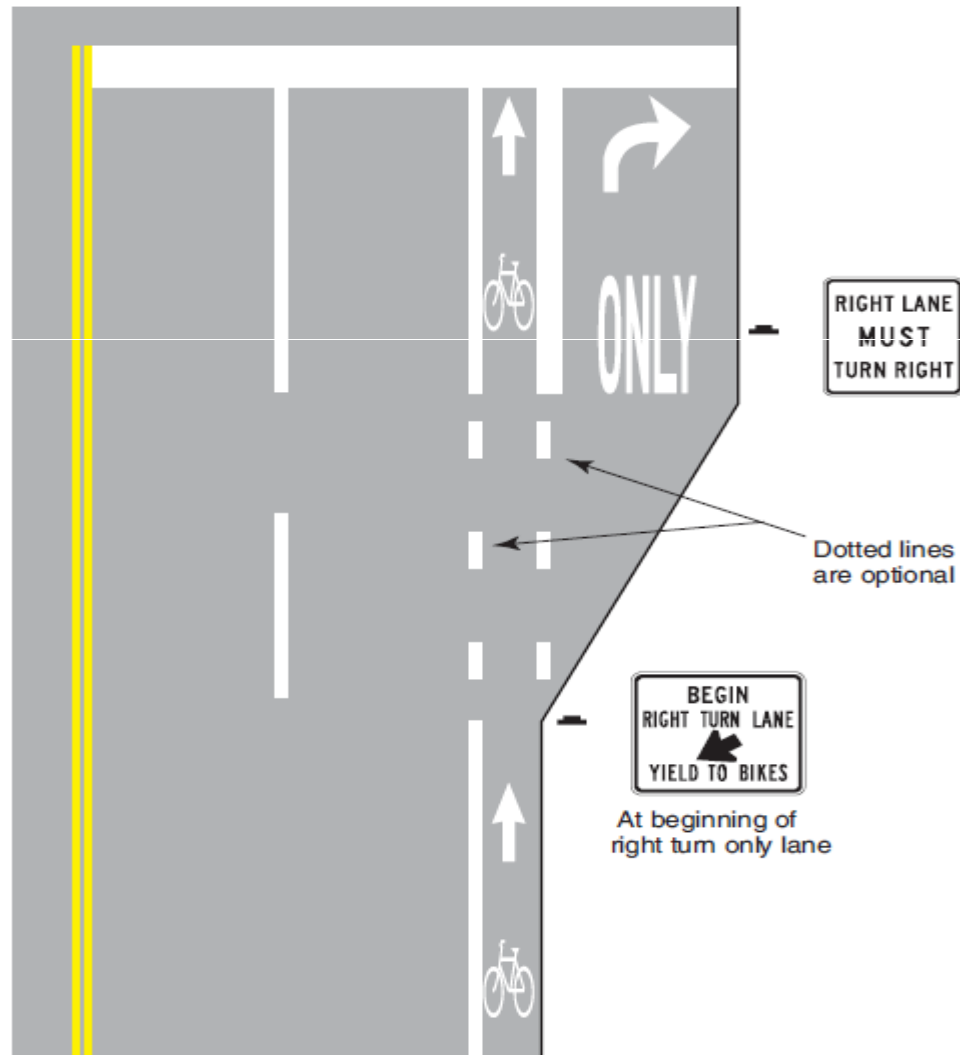


RESLER AT HELEN OF TROY





BICYCLE LANE TREATMENT AT A RIGHT TURN ONLY LANE





HELEN OF TROY AT REDD RD



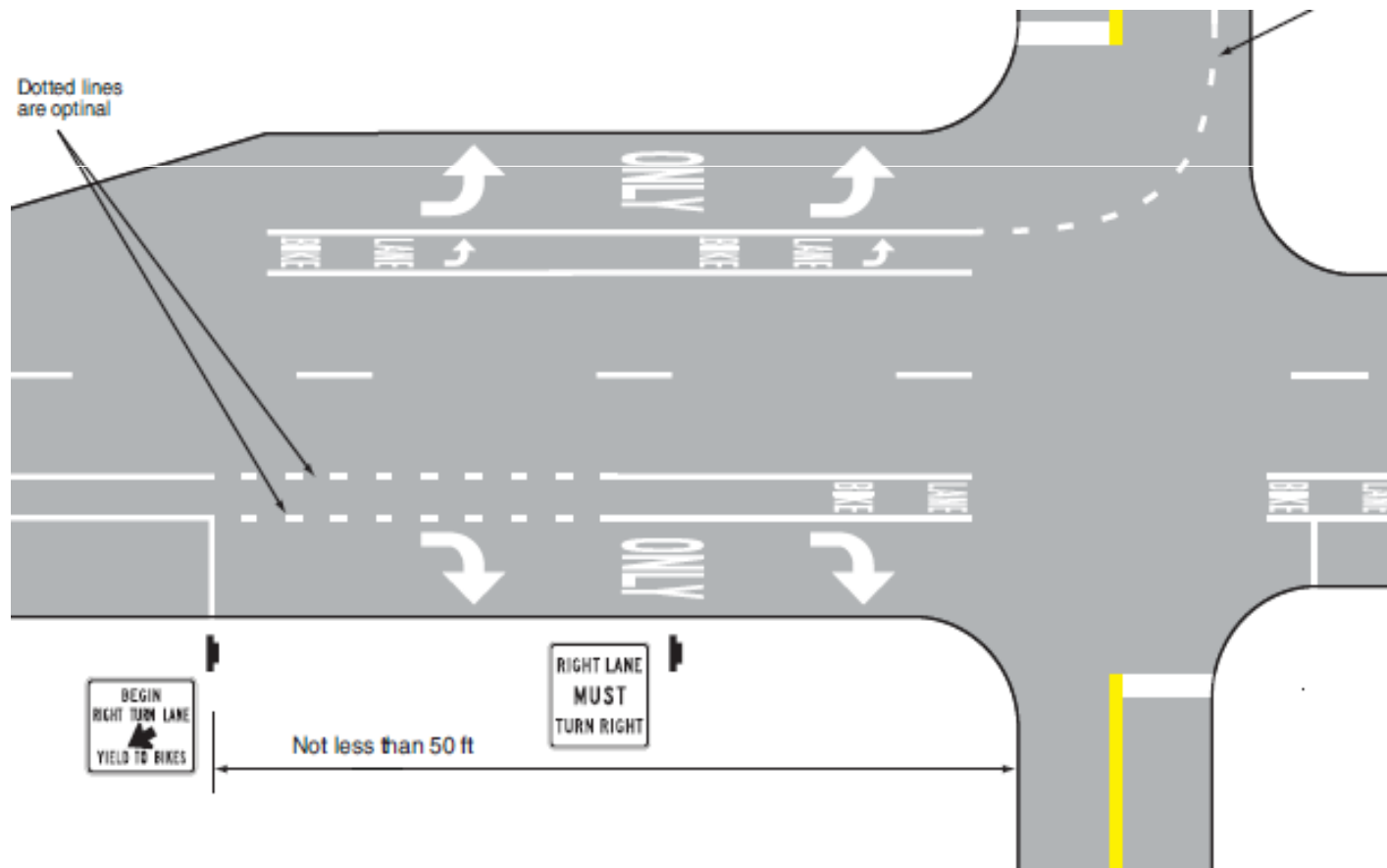


EDGEMERE AT LEE





DESIGNATED BICYCLE LANE WITH LEFT TURN AREA, HEAVY TURN VOLUMES, PARKING, ONE-WAY TRAFFIC OR DIVIDE HIGHWAY





SHARE THE ROAD SIGN

- As per the Texas MUTCD, where there is a need to warn motorists to watch for bicyclists traveling along the highway the “SHARE THE ROAD” plaque may be used





SHARE THE ROAD SIGN





ADDITIONAL STRATEGIES FOR ADDRESSING BIKE TRAFFIC THROUGH COMPLEX INTERSECTIONS

- Install bicycle boxes at intersections
- Provide exclusive right turn lane for vehicular traffic



BICYCLE BOX

- Is an intersection safety design used in Portland, Oregon to prevent bicycle/car collisions, especially those between drivers turning right and bicyclists.
- Increases visibility of the cyclist by allowing them to be in front of a vehicle at the intersection
- Vehicles are **not** allowed to turn right on red



BICYCLE BOX

BIKE BOXES

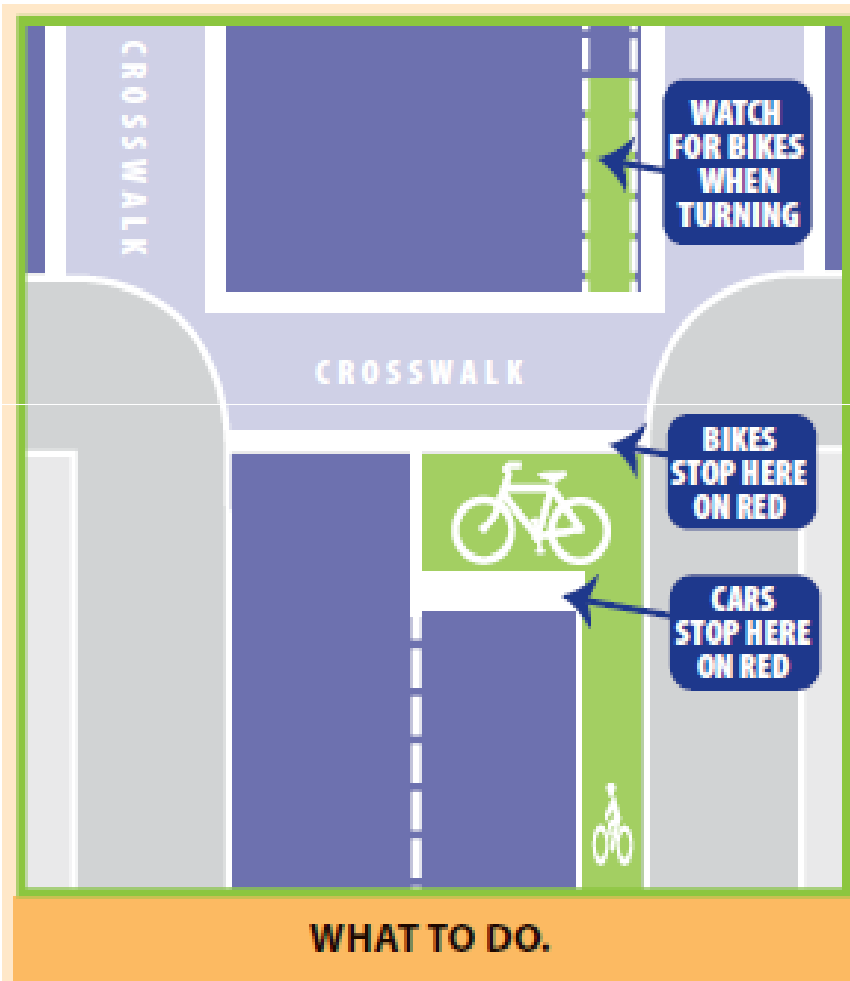
- Increase safety when drivers are making right turns by allowing cyclists to move in front.
- Increase safety by coloring the bike lane through the intersection.
- Increase safety by reminding motorists to be alert for cyclists.



**CYCLISTS ARE EASILY SEEN BY MOTORISTS
REDUCING THE RISK OF "RIGHT-HOOK" COLLISIONS.**



BICYCLE BOX





BICYCLE BOX

El Paso DOT proposes to implement a variation of the Bicycle box at the following intersections:

- North Loop & Yarbrough
- North Loop & Delta
- Yarbrough & Knights
- Montwood & Trawood
- Yarbrough & Trawood



CHALLENGES TO IMPLEMENTING BICYCLE BOXES AT INTERSECTIONS

- Requires outreach and education program for motorists and bicyclists
- Requires enhanced maintenance efforts for signs and pavement markings

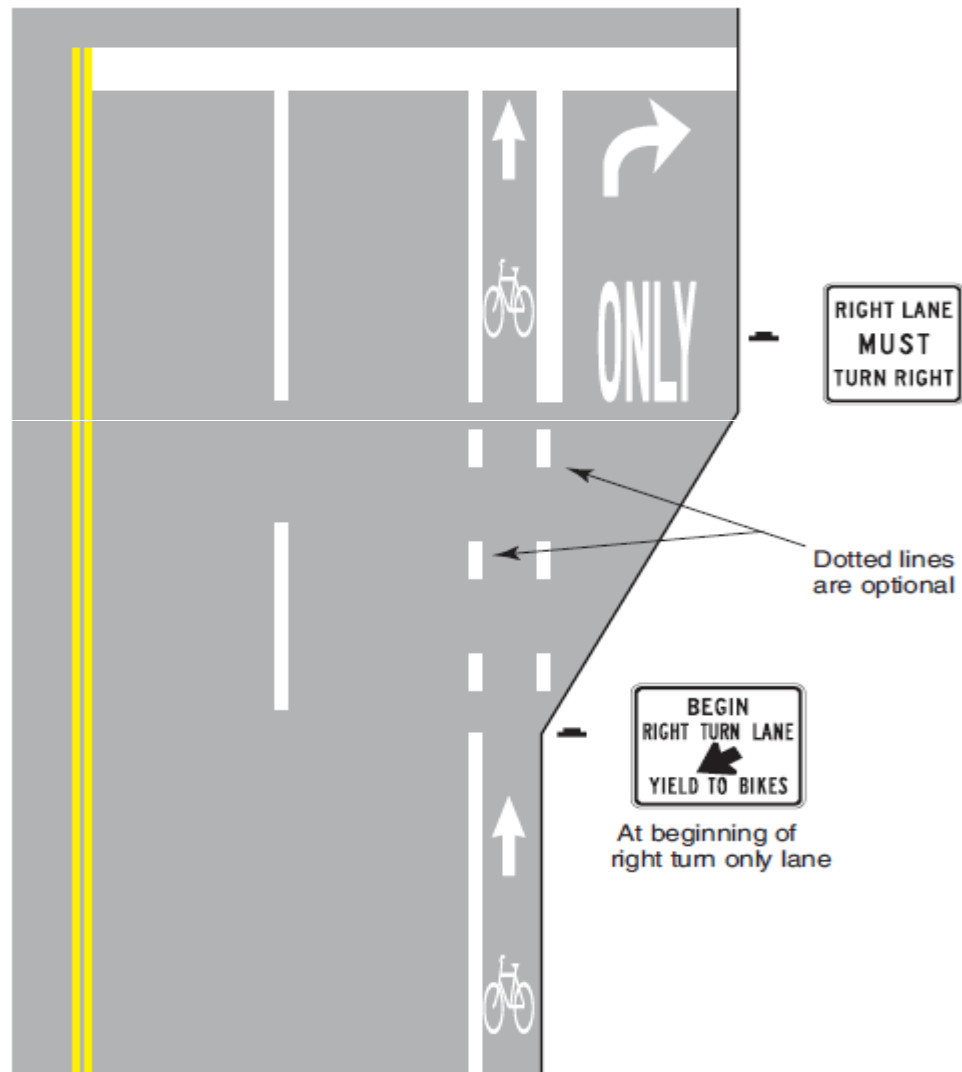


EXCLUSIVE RIGHT TURN LANE

- Provides an exclusive lane through the intersection for bicycles
- Provides an exclusive turn lane for vehicular traffic
- Vehicles **are** allowed to turn right on red



TEXAS MUTCD/FHWA EXAMPLE





CHALLENGES TO IMPLEMENTING EXCLUSIVE RIGHT TURN LANE

- May require additional right-of-way in the vicinity of the intersection to provide another lane of travel
- May increase crossing distance for pedestrians
- Causes bicyclists and right turn vehicles to cross paths



SUMMARY

- Current plans for bicycle paths in the City of El Paso are in conformance with designs recommended by the Texas MUTCD and FHWA.
- Bike boxes are proposed for installation at various intersections in El Paso
- Retrofitting existing intersection to provide exclusive right turn lanes requires additional resources for implementation



PORTLAND, OREGON BICYCLE BOX LINKS

- <http://www.portlandonline.com/transportation/index.cfm?&a=185112&c=34811>
- <http://www.portlandonline.com/transportation/index.cfm?a=301213&c=34811>



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